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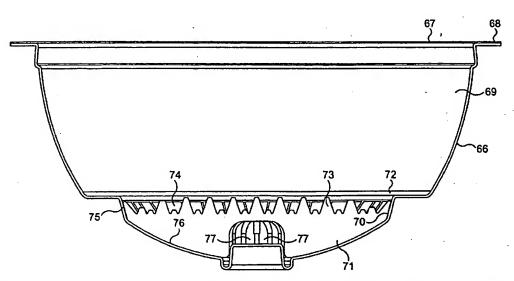
Declarations under Rule 4.17:

VC, VN, YU, ZA, ZM, ZW.

as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB. GD. GE. GH. GM. HR. HU. ID. IL. IN. IS. JP. KE. KG. KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,

[Continued on next page]

(54) Title: CLOSED CAPSULE WITH OPENING MEAN



(57) Abstract: The present invention relates to a closed capsule designed to be extracted under pressure in an extraction device, containing a substance (69) for the preparation of a beverage, comprising a closed system (66, 67) containing the said substance (69) and a means (73) inside the said system allowing the said capsule to be opened at the time of its use and allowing the said beverage to flow out without contact with its extraction system.

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MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent

(GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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INTERNATIONAL SEARCH REPORT

Internati iplication No PCT/EP 03/00384

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B65D81/00 B65D B65D85/804 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 B65D A47J Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to daim No. Citation of document, with indication, where appropriate, of the relevant passages Category * WO 02 081337 A (MAJER DOGLIONI LUCA 1-3,5,6, X,P 8,21-24, :TUTTOESPRESSO S P A (IT)) 26-29 17 October 2002 (2002-10-17) page 7, line 15 -page 10, line 3; figures 4-10 1,21-24,GB 1 256 247 A (KANTOR INTERNATIONAL) X 26,27 8 December 1971 (1971-12-08) cited in the application page 1, line 53 -page 2, line 48; figures 1-7 Patent family members are listed in annex. Further documents are listed in the continuation of box C. X Special categories of cited documents: *T* later document published after the International filling date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention "X" document of particular relevance; the claimed Invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "E" earlier document but published on or after the International filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another "Y" document of particular relevance; the claimed invention cannel of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. citation or other special reason (as specified) O document referring to an oral disclosure, use, exhibition or document published prior to the International filing date but later than the priority date claimed *&* document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 25/07/2003 22 May 2003 Authorized officer Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Berrington, N Fax: (+31-70) 340-3016

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Interns application No PCT/EP 03/00384

| | | PC1/EP 03/00384 |
|------------|---|-------------------------------------|
| | ation) DOCUMENTS CONSIDERED TO BE RELEVANT | |
| Calegory * | Citation of document, with indication,where appropriate, of the relevant passages | Relevant to claim No. |
| X | US 5 259 295 A (TIMM EBERHARD) 9 November 1993 (1993-11-09) | 1-6, 8-13,15, 21-24, 26-29 |
| | column 3, line 28 - line 50 column 4, line 9 - line 32; figures 1-3,7,9,10 | |
| X | DE 23 27 264 A (BEDNARTZ HUGO) 2 January 1975 (1975-01-02) page 11, line 3 -page 12, line 7; figures 6-7A | 1,26 |
| X | US 4 077 551 A (MANARESI ADRIANA) 7 March 1978 (1978-03-07) column 2, line 46 -column 3, line 36; figures 4,5 | 1-3, 26-29 |
| X | FR 2 620 921 A (FAFOURNOUX BERNARD) | 1 |
| A | 31 March 1989 (1989-03-31) page 4, line 11 -page 5, line 23; figures 3,4 | 4 |
| X | EP 0 451 980 A (GEN FOODS KRAFT LTD) 16 October 1991 (1991-10-16) column 9, line 13 - line 52; figures 5A,5B | 1 |
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INTERNATIONAL SEARCH REPORT

Inte al application No.

| Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet) |
|---|
| This international Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons: |
| 1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely: |
| Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically: |
| 3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a). |
| Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet) |
| This International Searching Authority found multiple inventions in this international application, as follows: |
| see additional sheet |
| |
| As all required additional search fees were timely paid by the applicant, this international Search Report covers all searchable claims. |
| 2. X As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee. |
| 3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.: |
| 4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: |
| Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees. |

| FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210 | | | | | | | | | |
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| This International Searching Authority found multiple (groups of) inventions in this international application, as follows: | | | | | | | | | |
| | inventions in this | incernationa | и аррии | cation, | as TOTTOWS: | | | | |
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INTERNATIONAL SEARCH REPORT

on on patent family members

PCT/EP 03/00384

| | ent document in search report | | Publication date | | Patent family member(s) | | Publication date |
|----|----------------------------------|---|---------------------|----------|----------------------------|------|--------------------------|
| WO | 02081337 | A | 17-10-2002 | IT | MI20010741 | | 07-10-2002 |
| | | | | WO . | 02081337 | Al | 17-10-2002 |
| GB | 1256247 | Α | 08-12-1971 | AT | 283183 | | 27-07-1970 |
| | | | | BE | 740896 | | 01-04-1970 |
| | | | | CH | 515155 | | 15-11-1971 |
| | | | | DE | 1954209 | | 27-05-1970 |
| | | | | ES FR | 153070 | | 16-10-1970 31-07-1970 |
| | | | | IE | 2022482 33402 | | 12-06-1974 |
| | | | | LU | 57420 | | 04-03-1969 |
| | | | | MT | 598 | | 11-09-1971 |
| | | | | NL | 6916281 | | 06-05-1970 |
| | | | | OA | 3156 | | 15-12-1970 |
| | | | | | | | |
| US | 5259295 | Α | 09-11-1993 | DE | 9013838 | | 06-02-1992 |
| | | | | AT | 119368 | | 15-03-1995 |
| | | | | DE | 59104862 | | 13-04-1995 |
| | | | | DK Ep | 479111 0479111 | | 24-07-1995 |
| | | | | ES | 2071182 | | 08-04-1992 16-06-1995 |
| | | | | HK | 157995 | | 13-10-1995 |
| | | | | JP | 4364818 | | 17-12-1992 |
| | | | | ŠŪ | 1837834 | | 30-08-1993 |
| | | | | US | 5287796 | | 22-02-1994 |
| DE | 2327264 | A | 02-01-1975 | DE | 2327264 | A1. | 02-01-1975 |
| US | 4077551 | A | 07-03-1978 | NONE | | | |
| FR | 2620921 | A | 31-03-1989 | FR | 2620921 | A1 · | 31-03-1989 |
| EP | 0451980 | A | 16-10-1991 | AT | 111856 | | 15-10-1994 |
| | | | | CA | 2039243 | | 01-10-1991 |
| | | | | DE | 69104106 | | 27-10-1994 |
| | | | | DE | 69104106 | | 19-01-1995 |
| | | | | DK Ep | 451980 0451980 | | 20-02-1995 16-10-1991 |
| | | | | ES | 2060297 | | 16-11-1991 |
| | | | | HK | 146494 | | 30-12-1994 |
| | | | | JP | 2690207 | | 10-12-1997 |
| | | | | JP | 5097166 | | 20-04-1993 |
| | | | | KR | 170775 | | 30-03-1999 |